AMWG – Verbatim Comments

Bruce Taubert: Referring to the timeline on the first page for captive populations, research animals, and all that kind of stuff suggest you move that a year earlier. Given the information we received today that the genetics structure information probably won't yield very much and I think we've all felt that all along that fish within the Grand Canyon reach are unlikely to be genetically different between one area and another, certainly with Carl's information. The fact that we're going to step up early or late 2006 or early 2007, we're going to have a test of the TCD and the fact that AMWG made a recommendation to the Secretary one or two meetings ago that we go ahead and start a captive population I think it is ridiculous to put that off until 2005 and given the fact that we're going to have information at the middle or the end of this year. It's unreasonable to wait until 2005 to do so.

Pam Hyde: I think we have to be clear about 2 genetics issues here, one is are there differences in genetics between the LCR population and some of the mainstem aggregations and the other issue is that if we're going to talk about captive breeding population that could be used to augment, replace somehow be reintroducing individuals taken from the river back into the river at some point there are a whole different set of genetics issues that need to be looked at and it's not necessarily always an issue of is this fish genetically different from another fish down the line, it's are you disturbing the genetic pool in a way that's not advantageous to the population in the long run. I think we have two issues there and we might want to be sure that we're doing the genetics management plan that looks into some of those genetic issues before we go too far down the road in taking actions on some kind of captive breeding or rearing type of a plan.

Jeff Cross: Took from Carl's presentation this morning that there is no urgency on doing captive breeding and I guess I think just the opposite. I think we can push that off and we have many years before we have to actually take that action. I don't see the TCD as sort of a make or break on captive breeding. I took Carl's presentation the other way that we have time not to think about it and plan it out.

Bruce Taubert: Were we not doing something like the TCD, I would agree with you but I think Carl also said that we don't know which way it is going to go. If it goes wrong and your population starts to diminish, then you want to have a fallback for some type of augmentation and that may happen as soon as the end of 2006. It's not a given that you can take young of the year fish out of the water today and be successful in rearing them in disease-free environment to release them. You also need to have some preparatory time. Raising fish is an art at times and not necessarily science and if you wait until the last minute and if you have something go wrong, then it's likely you'll have more problems.

Rick Johnson: I think the point here is that if there is a risk of catastrophic failure, it makes sense to have a captive population that we can fall back on. The question is what is that risk of catastrophic failure and is it with the TCD or with something else. Isn't that one of the points the science advisors are bringing up is what is the risk of catastrophic failure? If that's the case, maybe the argument here is that part of what we're waiting for is some assessment by the science advisors before we jump into something with potential negative consequences.

Dennis Kubly: You're correct. There is a risk assessment being done by the science advisors. We don't really know the detail to which they'll be able to go on the time frame they have in evaluating different operational scenarios. Some people view the TCD operation as an all or none phenomenon. In other words, you turn it up and make it warm or you don't turn it on at all.

But in the range of engineering designs that are being considered, there is a large variation is the flexibility that you have in how you deliver water. When you make it warm, how long you make it warm. Across that range there may be a wide range in the risk that we're taking in turning on and seeing things we don't want to see happen. With respect to timing, there probably would not be a decision until at least the end of the year to get through the risk assessment and through the compliance.

Carl Walters: I would just like to emphasize how unpredictable this *vampire in the basement* business is. If just one female channel catfish were to spawn successfully following the TCD and produce about 2,000 age 2 juveniles that survive because of the warm water, 2,000 age 2 juvenile channel cats from one spawning could eat the entire humpback chub juvenile out migration to the mainstem in 5 days. We would actually have trouble measuring it in their stomachs. You get me. In 5 days. And they wouldn't even get a full tummy.

Randy Peterson: One of the things you raised yesterday was the concept of reversibility. Carl, maybe you could talk about that for a few minutes. It's the idea that you may start down a path but if you find that you're reducing this type of method, then you could reverse your action.

Carl Walters: There were a whole series of TCD alternatives ranging from relatively simple things made out of plastic that nobody would feel real bad about tearing out to heavy duty $50 million concrete, permanent structures. From an adaptive management standpoint in view of the these big risks, recommend that you come out in favor of a temporary alternative that nobody is going to feel too bad about if it fails.

Randy Peterson: After the science advisors discussion this spring, one of the things we've thought about was the incremental construction period wherein in 2005 or 2006 we could install one or two units while that penstock was being rehabbed and then one or two a year after that and test them immediately to see if we wanted to continue with the full construction. A likewise, some much lesser cost alternative that may only be $5 million along the lines you're talking about for a temporary structure that could be taken down if the concept didn't work.

Sam Spiller: The TCD concerns me. I support the idea but I guess Dennis, what is being done to assess the risk of TCD in partial, in test, or in full operation in regard to what Carl talked about. I'm asking specifically the assessment of impacts by channels or other piscivorous fish and then what kind of capability management-wise do we have as resource agencies or the Park Service has as far as a land manager to abate that concern if we have an effect that definitely improves the capabilities of non-natives to prey on fish? What do we have? What have we got so far? Or what do we expect when it's done.

Dennis Kubly: The gathering of information to address the fears that people have about the TCD goes back several years. We've held two workshops bringing in professionals and we've come to the AMWG on three occasions to make presentations. The last time we did that, the AMWG advocated that we engage the science advisors to conduct a risk assessment. The draft of that assessment will be available to you in June for you to comment at your July or August meeting. The amount of time that's available to them does not allow them to do the quantitative evaluation that Sam's referring to. They're going to be looking at a very wide range of risks all the way from the economic through the ecological and environmental but you're probably not going to get a fine tuning in terms of the number of channel catfish that will be produced or probability that they'll be produced. You're not going to see that kind of information. I think they will comment on the reversibility, science that needs to be in place in order to measure whether or not these unintended consequences are occurring. The product

will help you in your deliberations. One of the problems that we've consistently faced is that this is a change in the system whose effects cannot be determined until you make the change and the best example that we have, the best corollary is Flaming Gorge Dam on the Green River, which is close but not the same. You can't draw a real close parallel. That's about as good as I can do in terms of answering the questions.

Sam Spiller: I guess in response to that. We kind of have to have it place to see what's going to happen and I guess that's where I think some of the folks are coming from with regard to we had better be able to produce fish pursuant to a genetics management plan and we better have the capability to do that and we better have the capability to release those fish if we see right from day one that we're having a detrimental effect on the humpback chub population. I would think we would want that. I think that would be one of the caveats of such a program.

Bruce Taubert: It seems we've been discussing this all along and I guess I'm not quite sure why we have this impasse to where some of us disagree. We're simply attempting to do some things to give ourselves more tools in the toolbox because those of you that are scientists understand the issues better than those of us that are administrators. The best scientists in the world says that the striped bass will not reproduce in the Colorado River go ahead and put them there, there won't be a problem. They erred big time. We have an opportunity to err big time here in disfavor of the humpback chub. I can't understand for the life of me why we can't get some of those animals some place and we can't agree to do something for the species as a failsafe to put them some place in case we're not as smart as we think we are. I guarantee you we're not. I don't understand that block because we as a group two meetings ago with a majority vote that said let's get some of these animals out of the river, into a hatchery, as a failsafe.

Randy Peterson: We will take these comments and when we meet again as an ad hoc group, we'll bring to you a document and proposal in July and this issue may just come up for a stake for the AMWG in terms of recommendation.

Bruce Taubert: What I'm asking for today that that be moved forward by a year in order to give us some more flexibility because two years before TCD in my mind is stupid. Let's give ourselves the time.

Wayne Cook: Just a reminder the TCD will be made of concrete and steel and you can turn it off on day two. You can operate it at one hour and shut it off the next hour. The real critical issue whether we have enough monitoring done to know that we can detect change.

Sam Spiller: Wayne, I realize that. The trouble is if we do something to improve channels, you can't turn them off the next hour.

Wayne Cook: You can turn the warming off.

Sam Spiller: But if we improve the conditions for them to move up and become better established, we just unimproved conditions for certain fish.

Randy Peterson: That's sort of the reversibility question, right?

Wayne Cook: Yeah, it is. Maybe it's cold enough that they're not enticed up but if we get them here, it's not cold enough to drive them back down. Maybe that's the case Carl? You don't think so?

Randy Peterson: The purpose of this discussion is to focus on how these projects interact and is the timing right so rather than perhaps in some ways debate the individual projects, is the strategy right? Are we missing something? Is something just not supposed to be there?

Pam Hyde: I just want to address what Bruce is saying. I think that if we were dealing with a situation of great uncertainty in the TCD with a solution that was risk-free, there would be no hesitation to come up with some risk free insurance policy but I think what some of us are advocating is that the captive breeding and rearing is not a risk free activity on its own and so if we're going to engage in that in order to respond to what we perceive as a risk with warming the water which we're trying to evaluate in the risk analysis, that we need to do our homework and assess the risks of a captive breeding approach and to go through what seems logical in terms of a genetics management plan and perhaps even a risk assessment with pulling the fish and putting them into hatcheries as well because it's not an option that's not without risk of its own.

Clayton Palmer: This is a clarification and that is there are projects which seem to me to be easy and two of them are: the translocation of HBC and the collection of fish for grow out, which I think in on your list. IF you take fish out of the water to either translocate or grow them out, why is it that some of those fish would be held as your potential broodstock considering that you may be doing some genetics management plans and some captive broodstock plans at the same time? I don't know what risk there is? If you're going to be pulling fish out anyway for these two other purposes.

Randy Peterson: The translocation has a less risky endeavor than a grow out option and that as a less risky endeavor to an augmentation option. Our sense is that we can move forward with translocation immediately as soon as the non-natives were taken out of the tributaries.

Clayton Palmer: You've got a short-term grow out plan. On your timeline you don't have remove and grow out until the end of FY 2005. I have to suggest that be moved up too. I don't see the risk in waiting until 2005 for grow out.

Dennis Kubly: Clayton, a clarification for you. Translocation does not involve taking fish out of the canyon. It involves first moving them in the LCR to a higher reach about Chute Falls in an area where they don't presently exist and secondly, after non-native removal to other tributaries that have been surveyed and found suitable for that purpose. Much of this front end work was done by Rich Valdez and others in their evaluation for the second population. There is an element in there that says if necessary take fish out for translocation but the first stage of that was not to take fish out of the canyon.

Clayton Palmer: You main you're distinguishing between putting fish in a truck to move them somewhere else and putting fish in a pond, then a truck, and then putting them back in the river? That's the distinction?

Dennis Kubly: Yes.

Clayton Palmer: I don't that as being a big distinction.

Carl Walters: Unfortunately there is a huge one because if that pond is around one of the national fish hatcheries it's liable to a bunch of other things in it and so when you get put back into wherever you're going, you get to carry along with all those other little goodies that were left behind by the previous fish and some of those goodies are extremely nasty.

Bruce Taubert: Clayton mentioned something about the second population and I guess from an AMWG member's perspective, if I sent a letter to the Fish and Wildlife Service asking them the question about how the biological opinion and the new guidelines for recovery mesh or don't mesh, I haven't received a response yet. I guess as an AMWG member, I would like the Bureau to also look into that because we're talking about paying money to establish a second population I think because of the direction from the biological opinion and just want to make sure it's also attached to the direction that we received in the guidelines and not just the biological opinion. I think when Rich talked about the guideline, it was attached to that also? Am I correct?

Clayton Palmer: I get the feeling that the biological opinion which required the establishment of second population differs in a remarkable way from what Rich Valdez is talking about in terms of one population in the Grand Canyon and augmenting its range.

Randy Peterson: And that's really the focus of the comprehensive strategy here.

Bruce Taubert: the guidelines?

Randy Peterson: The meta population of chub throughout the Grand Canyon simply because of the intermixing between the LCR and the mainstem. It's probably silly to think that those two are going to remain distinct.

Matt Kaplinski: My question was in regards to how this fits into the rest of the program. We're essentially talking about one species of fish in an ecosystem level. At some point it needs to come out of its hatchery if you will and get integrated into the rest of the program. We're talking about moving a lot of these programs into the 2004 slot and we're on our second iteration of the 2004 budget that we're going to be talking about tomorrow.

Randy Peterson: You asked two questions. One is an ecosystem question and the other is a budget question. On the ecosystem side, that's a very good comment. We thought that the current experimental flow philosophy or regime about trying to take advantage of tributary inputs with high flows and stable flows perhaps in the fall could accomplish that fits with some strategy to benefit chub that may be coming out of the LCR in this fall space. Also addressing the issue of stability of flows, the idea of high fluctuations for some type of non-native fish suppression releases in the winter makes some sense too. I think as we, through project 7, design the experimental program in the future that we'll tie not only the sediment issues together but also these humpback chub issues. On the budget question, GCMRC has taken a cut at revising the 2004 budget to accommodate the overhead issue from the USGS and in so doing has also taken into account through a backdoor approach some of these humpback chub concerns. So when we have that discussion tomorrow in the TWG, you'll find that these two programs are trying to get meshed together in terms of the humpback chub needs for the next year, the overhead issue from the USGS, and the ongoing monitoring and research. After the TWG has its discussion, we will bring to the AMWG in July some recommendation for an 04 program that does both.

Clayton Palmer: Since we're off the topic of propagation for just a minute, I have a comment about the timeline and the projects. My comment is this. I appreciate you Randy and others have the time and I've participated with Gary Burton in the AHG but since there are other things to do, I have not made all the comments I would like to make. You said earlier in introducing this that you through a bunch of projects on the wall and they all stuck. By that you meant that

nobody said “that is such a stupid idea that we should take it off the wall now.” We needed to have it developed in order to find it that it’s a stupid idea. And so I think there are projects that are meritorious and other projects that are not. But I thought that each of the projects that were offered were worth looking at and thinking about. I am concerned now that our 21 projects are A – not all meritorious. I think it would be useful to have the AHG do some kind of “bang for the buck” analysis, that is how much of benefit to humpback chub do you get from this project and what does it cost? For example, I noticed that the sediment augmentation project. The feasibility study is $1.2 million and I think if we looked at the cost of that project and talked to others, we might find that it’s marginal benefit and high cost. I think we should suggest to the HBC AHG that they do a review of these projects and pull out a set of projects that are worthwhile and compatible with what’s going on now and make recommendations to withdraw the consideration of a number of others. In line with that, I believe your timeline is too ambitious but I’m not sure. I think the AHG did a good job ordering them spatially but I don’t know that every project should start in 2004 and should have an impact on the 2004 budget. It may be that owing to budgetary constraints that you might put off projects for future years because of what it does to your current monitoring and research program. I want to suggest that with these projects we give two directions to the HBC – 1) to do an evaluation with the scientific community on the merits of the project and determine whether the projects are in or out of scope and 2) look at the budgetary implications and modify the timeline based on where we think they can be fit into the budgets for the various fiscal years.

Randy Peterson: Budgetary will one of the roles of the TWG as they talk about the 04 budget and compare the projects that are on the screen right now with other monitoring and research activities and management actions slated to occur in 2004. Right? Which is more important to move forward with. Clearly, we have not gone through and scrubbed these proposals really for a month or two. There have been some minor edits but not real fundamental evaluation and do they belong here. I think numbers 1 and 2 are pretty good examples where we may or may not need the Willow Beach genetics evaluation ... (tape ended)

Clayton Palmer: So that comment Randy is compatible with what I just said although you said let’s have the TWG do it. I presume that the HBC AHG would assist the TWG in doing that work.

Randy Peterson: That’s the next step for the HBC AHG.

Bruce Taubert: We received a document as the Budget AHG Conference Call dated May 23, 2003. It talks about priorities with associated costs and it talks about concur with mainstream population for $250,000. I didn’t see that up here unless I missed it.

Randy Peterson: That’s this develop LCR mainstem population estimate of chub. The cost of doing that is some additional mainstem monitoring which has been described already as being difficult and expensive about $250,000 a year.

Bruce Taubert: Given what Carl has given us today, you would put that lower on the list for priority of expenditures?

Randy Peterson: We could. That’s a topic for discussion.

Bruce Taubert: I understand that we’ve done a good job of killing trout and they don’t have to expend about $200-300,000 this year so that $200-300,000 could be carried forward in other projects or we’ll make a decision at this table on how to spend those $200-300K?

Steve Gloss: All indications are that mechanical removal has been very successful in the first three trips. I think it would be very premature to say that we're not going to spend any more money. We certainly have to conduct all or most of one additional trip in July in order to ascertain what the staying power of that effectiveness is. We shouldn't project any savings in FY03. We might be able to project some savings in FY04.

Bruce Taubert: But if you made fewer trips though, you'd have a savings? You have three more trips planned?

Steve Gloss: Right.

Bruce Taubert: And if you make one more trip and you find enough trout to not justify going down and killing any more, then we have two trips we've saved?

Steve Gloss: That's correct.